

CLAIMS

What is claimed is:

1. A waveform generating device comprising:
storage means for storing waveform data of a chain of a plurality of separated sound components;
performance data input means for inputting performance data ;
time compression and expansion percentage acquisition means for acquiring a time compression and an expansion percentage of each of the separated sound components of the waveform data stored in the storage means based on a first series of the performance data; and
waveform generation means for generating new waveform data by compressing and expanding the stored waveform data based on the time compression and the expansion percentage for each of the separated sound components in accordance with a second series of performance data that have been input by the performance data input means.
2. A waveform generating device comprising:
a first storage means for storing waveform data of a chain of a plurality of separated sound components;
performance data input means for inputting performance data;
a second storage means for storing pitch information that corresponds to each of the separated sound components of first performance data that have been input by the performance data input means; and
pitch information control means for changing a pitch information of the waveform data based on the pitch information in accordance with second performance data that have been input by the performance data input means.
3. A waveform generating device comprising
a first storage means for storing waveform data of a chain of a plurality of separated sound components;
performance data input means for inputting performance data;
a second storage means for storing pitch information that corresponds to each of the separated sound components of first performance data that have been input by the performance

data input means; and

pitch information control means for changing a pitch of a separated sound component of waveform data based on the pitch information, wherein a pitch information of the waveform data in the separated sound component is gradually altered in accordance with second performance data that have been input by the performance data input means.

4. A waveform generating device having
a first storage means for storing waveform data of a chain of a plurality of separated sound components;
performance data input means for inputting performance data;
storage means for storing volume information that corresponds to each of the separated sound components of first performance data that have been input by the performance data input means; and

volume information control means for changing a volume information of the waveform data based on the volume information in accordance with second performance data that have been input by the performance data input means.

5. A waveform generating device comprising:
a first storage means for storing waveform data of a chain of a plurality of separated sound components;
performance data input means for inputting performance data;
storage means for storing volume information that corresponds to each of the separated sound components of first performance data that have been input by the performance data input means; and

volume information control means for changing a volume information of a separated sound component of waveform data based on the volume information, wherein a volume information of the waveform data in the separated sound component is gradually altered in accordance with second performance data that have been input by the performance data input means.

6. A waveform generating device comprising:
waveform data storage means for storing waveform data of a chain of a plurality of

separated sound components;

performance data input means for inputting performance data;

performance data storage means for storing first performance data that have been input by the performance data input means;

performance data detection means for detecting a sound production length of second performance data that have been input by the performance data input means;

performance data updating means for updating the first performance data based on the sound production length;

time compression and expansion percentage acquisition means for acquiring a time compression and an expansion percentage of each of the separated sound components of waveform data based on the first performance data that have been updated; and

waveform generation means for generating a waveform in conformance with the time compression and the expansion percentage and in accordance with second performance data that are input by the performance data input means.

7. The waveform generating device cited in Claim 6, wherein the performance data detection means includes tempo detection means for detecting a tempo of the second performance data based on the sound production length; and

wherein the performance data updating means updates the first performance data based on the tempo of the second performance data.

8. The waveform generating device of Claim 6, wherein the performance data updating means updates a tempo of the first performance data based on the sound production length.

9. The waveform generating device of Claim 7, wherein the performance data updating means updates a tempo of the first performance data based on the sound production length.

10. The waveform generating device of Claim 6, wherein the performance data updating means updates the first performance data based on the sound production length when there has been a specified alteration to the second performance data.

11. The waveform generating device of Claim 7, wherein the performance data updating means updates the first performance data based on the sound production length when there has been a specified alteration to the second performance data.

12. The waveform generating device of Claim 8, wherein the performance data updating means updates the first performance data based on the sound production length when there has been a specified alteration to the first performance data.

13. The waveform generating device of Claim 9, wherein the performance data updating means updates the first performance data based on the sound production length when there has been a specified alteration to the first performance data.

14. A method for generating a waveform comprising:
storing waveform data of a chain of a plurality of separated sound components ;
inputting performance data;
acquiring a time compression and an expansion percentage of each of the separated sound components of the waveform data based on a first series of the performance data; and
generating new waveform data by compressing and expanding the stored waveform data based on the time compression and the expansion percentage for each of the separated sound components in accordance with a second series of performance data that have been input.

15. A method for generating a waveform comprising:
storing waveform data of a chain of a plurality of separated sound components;
inputting performance data;
storing first performance data that have been input;
detecting a sound production length of second performance data that have been input;
updating the first performance data based on the sound production length;
acquiring a time compression and an expansion percentage of each of the separated sound components of waveform data based on the first performance data that have been updated; and
generating a waveform in conformance with the time compression and the expansion percentage and in accordance with second performance data that are input.

16. A waveform generating device comprising:
a storage device for storing waveform data of a chain of a plurality of separated sound components;
a performance data input device for inputting performance data ;
a time compression and expansion percentage acquiring device for acquiring a time compression and an expansion percentage of each of the separated sound components of the waveform data stored in the storage device based on a first series of the performance data; and
a waveform generator for generating new waveform data by compressing and expanding the stored waveform data based on the time compression and the expansion percentage for each of the separated sound components in accordance with a second series of performance data that have been input by the performance data input device.

17. A waveform generating device comprising:
a waveform data storage device for storing waveform data of a chain of a plurality of separated sound components;
a performance data input device for inputting performance data;
a performance data storage device for storing first performance data that have been input by the performance data input device;
a performance data detection device for detecting a sound production length of second performance data that have been input by the performance data input device;
a performance data updating device for updating the first performance data based on the sound production length;
a time compression and expansion percentage acquisition device for acquiring a time compression and an expansion percentage of each of the separated sound components of waveform data based on the first performance data that have been updated; and
a waveform generator for generating a waveform in conformance with the time compression and the expansion percentage and in accordance with second performance data that are input by the performance data input device.